



SECTION 4

■ THE GUIDELINES AT WORK

Metro revises service three times each year, in the spring, summer, and fall. In 2012, Metro made service changes in February, June and September using the service guidelines. The changes were prompted by the planned start of two RapidRide lines and by Ordinance 17169, in which the County Council directed Metro to reinvest at least 100,000 annual service hours to make Metro more efficient and productive; and to eliminate the Ride Free Area (RFA).

In each service change, we reduced or deleted routes with relatively low productivity and invested hours where needed to reduce overcrowding, improve reliability or bring service up to target levels. These changes were designed to make better use of transit resources and to take advantage of new investments by reorganizing service to reduce duplication, provide more frequent service where it is most needed, and offer new and better connections for transit riders.

February 2012 service changes

In February 2012, Metro replaced fixed-route service on three routes with dial-a-ride transit (DART) service. These three routes served communities in southeast and northeast King County including parts of Black Diamond, Bothell, Enumclaw, Maple Valley, Redmond, Renton, and Woodinville. The routes were lower productivity services, but represented the last or only connection in some areas they served. Transitioning these routes to DART service allowed Metro to maintain connections in these communities while saving money by providing lower-cost service in these areas.

Examples of delivering geographic value and promoting social equity in the 2012 service changes:

- Frequent, all-day connections are provided by the RapidRide C and D lines between downtown Seattle and Uptown regional growth and jobs centers, the Ballard/Interbay manufacturing/industrial center and the transit activity centers of Alaska Junction, Crown Hill, and Westwood Village.
- More frequent, direct, and reliable service provides better connections to more places for historically disadvantaged and low-income populations.
- Service is more frequent in areas with diverse and low-income communities such as Burien, SeaTac, South Park, and White Center.
- More frequent east-west connections increase mobility and travel options for all riders, such as routes 31 and 32 between Interbay, Fremont, and the University of Washington and Route 50 between West Seattle, SODO, and southeast Seattle.
- Conversion of three higher cost fixed-route services in northeast and southwest King County with dial-a-ride transit (DART) provides more flexible, less costly service to lower density areas in lieu of service reductions.

June 2012 service changes

In June 2012, Metro reduced or deleted 15 routes that had low productivity. We reinvested the service hours, adding trips to eight routes to relieve crowding and revising schedules for 17 routes to improve reliability.

We also added evening service seven days a week on Route 180, which serves the corridor between Burien, SeaTac, Kent, and Auburn. This corridor was targeted for 30-minute night service but had no night service after about 7:30 p.m. between Burien, SeaTac, and Kent.

The total reinvestment in June of more than 30,000 hours met needs that were identified in the 2011 guidelines report. Not only did the reinvestment make Metro more efficient and productive, preliminary information indicates that reliability investments have improved on-time performance on many of the routes that received additional service hours.

September 2012 service changes

The September 2012 service change was the largest change Metro has made in recent history. It was the first large restructure to be implemented under the new guidelines. The box below has more information about what the guidelines say about restructures.

Routes representing almost one-quarter of the total Metro system hours were affected by the 2012 service change. We started the RapidRide C and D lines, revised more than 50 routes, and eliminated the Ride Free Area in downtown Seattle. These changes were designed to improve the effectiveness of transit and provide better connections for riders. Metro reduced low-performing routes by more than 65,000 hours and invested those hours to relieve crowding, improve reliability, and improve corridors that were below their target service levels. Fifteen routes with low productivity were reduced or deleted, and three were revised substantially with the goal of attracting more riders. The average productivity of routes that were reduced was 25.6 rides per hour, while the average productivity of routes receiving investments was 36.2 rides per hour.

June 2012 changes

Service quality investments

Trips were added to these routes:

1, 8, 9, 41, 44, 73, 128, 169

Schedules were changed for these routes:

5, 7, 8, 16, 22, 31, 33, 43, 48, 49, 60, 68, 106, 128, 166, 205, 309

Service reductions

Routes reduced:

25, 99, 119, 139, 935

Routes deleted:

38, 79, 129, 162, 175, 196, 219, 600, 912, 925

When does Metro restructure service?

A service restructure changes a number of routes in an area at once. Metro restructures service to improve the efficiency and effectiveness of the transit network, reduce duplication and ensure good service design as outlined in the service design guidelines. Restructuring is also one way to improve service in underserved corridors when we don't have new resources.

The service guidelines list the following triggers for restructuring service:

- Metro or Sound Transit starts a major new service.
- Transit service does not reflect changed travel patterns or transit demand.
- Transit services overlap.
- Service does not match ridership.

- A major transportation change takes place, such as the start of SR-520 bridge tolling.
- A major development or land-use change takes place.

Metro may restructure service in the next few years for the following purposes:

- Reduce duplication and improve performance of routes serving Renton when the F Line starts.
- Reduce duplication and improve performance in Issaquah, Magnolia, and Mercer Island.
- Make changes to maintain high-performing all-day service in Kent East Hill after grant funding expires in 2014.
- Improve performance and directness of travel in Juanita/Bothell/Kirkland/Woodinville.

Elimination of the Ride Free Area

With the elimination of the RFA, Metro transitioned to a systemwide “pay on entry” fare collection system. This change meant that all riders pay as they enter the bus, making the system simpler to understand and use. However, bus travel times were expected to increase in downtown Seattle as a result of this change, so Metro also revised several routes serving the downtown core to improve the flow of buses through this area. These changes included eliminating or revising existing through routes, eliminating some routes that serve downtown to reduce duplication, shifting some routes to other downtown pathways, and changing stop patterns of particular routes.

Service quality investments

The C and D line restructures gave Metro an opportunity to more closely examine and address routes with service quality issues that had been identified through the service guidelines analysis. Key investments in service quality included additional trips and route revisions to improve reliability. For example, more frequent service was added to Route 128 to reduce overcrowding and accommodate an expected increase in riders.

Metro also had an opportunity to reschedule several routes as part of the C and D line restructure, allowing us to improve on-time performance by creating schedules that better reflected the actual running times.

Two major types of changes were made beyond simply rescheduling service. First, some routes were shortened and replaced by other services. Shorter routes are generally more reliable because there is less time and distance for routes to get off-schedule. Second, some routes were no longer through-routed. Through-routing is when a bus travels into a major center such as downtown Seattle as one route and travels out of the center as a different route. Through-routing is an efficient way to schedule service, but it can cause unreliable service because any delays on the inbound portion of the through-route are carried through to the outbound route.

Investments in corridors below target service levels and other All-Day Network corridors

The largest investments made as part of the restructure were to meet or move towards target service levels identified through our guidelines process. We met or moved towards target service levels on the corridors below through service improvements on routes 131, 132, and 166 and the start of the RapidRide C Line and routes 40 and 50.

- Kent and Burien via Kent-Des Moines Road, S 240th Street, First Avenue S (Route 166) was improved from hourly to every 30 minutes off-peak and night periods.
- West Seattle and Seattle CBD via Alaska Junction and Fauntleroy (C Line) was improved to every 10-15 minutes all day.
- Ballard and Lake City via Northgate (new Route 40) was improved to every 15 minutes or better during the peak period.

September 2012 service quality investments

Trips were added to this route: 128

These routes were shortened to improve reliability: 5, 28, 30, 75, 131, 132

These routes were no longer through-routed to improve reliability: 36, 125, 40 (replaced parts of Route 17)

Improved service between Burien, South Park, SODO, and downtown Seattle

Routes 131 and 132 serve All-Day Network corridors between Burien, South Park, and downtown Seattle.

Both corridors were identified as underserved in 2011, and both routes had poor reliability.

With the restructure:

- Service comes every 15 minutes on Fourth Avenue S through SODO
- Both routes arrive more frequently
- Both routes are faster, more direct, and more reliable

- Othello Station and Columbia City via Seward Park (new Route 50) was improved to every 30 minutes during the off-peak period.
- Burien and downtown Seattle via First Avenue S, South Park, Airport Way (Route 131) was improved to every 30 minutes during the off-peak period.
- Burien and downtown Seattle via Des Moines Memorial Drive South Park (Route 132) was improved to every 30 minutes during the off-peak and night periods.

As part of the restructure we also used the service design guidelines, which are principles and quantitative standards for designing the transit network and individual routes. As we redesigned the network around the C and D lines, our major purposes were to provide an efficient network, reduce duplication between services so they wouldn't compete for the same riders, and make the network simple and easy for riders to understand.

We reduced duplication by adjusting routes to connect with and feed into the RapidRide lines rather than compete with them between neighborhoods and downtown Seattle. We improved connections and made transfers easier by creating common transfer points between multiple routes at major centers (see box about Westwood Village).

Example of how we use the service design guidelines: creating frequent connections at Westwood Village

With the September 2012 service change, the C Line and four more routes were designed to connect to Westwood Village. This network design provides a connection point between many routes and strives to make transfers easier. More frequent service and connections are available with the listed routes in the table.

Route	Description		Weekday Frequencies		
			Peak	Midday	Evening
21	Westwood Village	CBD Seattle	15	15	30
60	Westwood Village	Capitol Hill	20	20	30-60
120	Burien	CBD Seattle	8-15	15	30-60
125	SSCC	CBD Seattle	20	30	45
C Line	Westwood Village	CBD Seattle	10-15	15	15-30

Service reductions

The guidelines help us identify services that could potentially be revised or reduced, with the hours reinvested to meet other needs. In September, we made changes to many poorly performing routes. We reduced some trips or deleted service in some times of day on routes where productivity was low but where some service was needed to provide connections and meet demand.

We significantly rerouted or revised several routes that had low productivity. In some cases, we deleted service to lower-ridership areas while maintaining service between activity centers. Reducing service to lower-ridership areas and focusing service in the busiest areas can improve productivity.

Metro deleted routes with low productivity. Many of the areas served by the deleted routes had alternative routes nearby, or replacement service was planned that was significantly different.

September 2012 service reductions

Routes reduced: 37, 55, 56, 125

Routes revised: 21, 22, 131, 132

Routes deleted: 23, 34, 39, 45, 46, 53, 81, 85, 133, 134